

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claims 1-11 Canceled.

Claim 12. (previously presented) A field effect transistor comprising:

a substrate having a doping of a first conductivity type;

a drain area in the substrate having a doping of a second conductivity type opposite to the first conductivity type;

a source area in the substrate being laterally spaced from the drain area and having a doping of the second conductivity type;

a channel area in the substrate disposed between the source area and the drain area;  
and

an area having a doping of the second conductivity type, the area connected to the drain area and arranged in a portion of the substrate adjacent to the drain area such that alternating regions having the first conductivity type and having the second conductivity type are disposed in the portion.

Claim 13. (previously presented) The field effect transistor of claim 12, wherein the area is configured such that the portion of the substrate bordering the drain area is substantially

depleted responsive to application of a predetermined drain voltage.

Claim 14. (previously presented) The field effect transistor of claim 12, wherein the area comprises a comb-shaped cross section.

Claim 15. (previously presented) The field effect transistor of claim 12, wherein the substrate comprises a surface at which the source area, the channel area, and the drain area are arranged, and wherein the area comprises a plurality of parallel columns extending in a direction substantially perpendicular to the surface of the substrate.

Claim 16. (previously presented) The field effect transistor of claim 12, wherein the substrate comprises a surface at which the source area, the channel area, and the drain area are disposed, the drain area including a first side disposed near the surface and an opposing second side disposed within the substrate, and wherein the area is disposed adjacent the second side of the drain area.

Claim 17. (previously presented) The field effect transistor of claim 12, wherein:

the substrate comprises a base substrate having a surface and an epitaxial layer epitaxially grown on the surface of the base substrate;

the source area, the drain area, and the channel area are disposed in the epitaxial layer;  
and

the portion in which the area is arranged extends from the drain area towards the

surface of the base substrate.

Claim 18. (previously presented) The field effect transistor of claim 12, wherein the drain area includes a low-doped drain sub-area having a plurality of drain portions in which a doping concentration in a direction toward the channel area decreases.

Claim 19. (previously presented) The field effect transistor of claim 18, wherein a lateral dimension of the area is at least as great as a lateral dimension of a most highly doped portion of the plurality of drain portions.

Claims 20-22. (canceled)

Claim 23. (currently amended) A field effect transistor comprising:

a substrate having a first conductivity type;

a drain area in the substrate having a second conductivity type opposite to the first conductivity type;

a source area in the substrate laterally spaced from the drain area and having a doping of the second conductivity type;

a channel area in the substrate disposed between the source area and the drain area;

and

a plurality of regions of the second conductivity type, each of the plurality of regions being electrically connected to the drain area and extending from the drain area into a portion

of the substrate having the first conductivity type, such that alternating regions having the first conductivity type and having the second conductivity type are formed below the drain area.

Claim 24. (canceled)

Claim 25. (currently amended) The field effect transistor of claim [[24]]23, wherein the plurality of regions comprise a plurality of parallel columns.

Claim 26. (previously presented) The field effect transistor of claim 23, wherein the plurality of regions has a comb-shaped cross section.

Claim 27. (previously presented) The field effect transistor of claim 23, wherein the substrate comprises a surface at which the source area, the channel area, and the drain area are arranged, and wherein the plurality of regions extend in a parallel manner generally away from the surface of the substrate.

Claim 28. (previously presented) The field effect transistor of claim 23, wherein:

the substrate comprises a base substrate having a surface and an epitaxial layer epitaxially grown on the surface of the base substrate;

the source area, the drain area, and the channel area are disposed in the epitaxial layer;

and

the plurality of regions extend from the drain area towards the surface of the base

substrate.

Claim 29. (previously presented) The field effect transistor of claim 23, wherein the drain area includes a low-doped drain sub-area having a plurality of drain portions in which a doping concentration in a direction toward the channel area decreases.

Claim 30. (currently amended) The field effect transistor of claim 29, wherein a lateral dimension of at least one of the plurality of regions is at least as great as a lateral dimension of a most highly doped portion of the plurality of drain portions.

Claim 31. (currently amended) The field effect transistor of claim 29, wherein the low-doped drain sub-area includes three laterally adjacent drain portions.

Claim 32. (new) A field effect transistor comprising:

- a substrate having a first conductivity type;

- a drain area in the substrate having a second conductivity type opposite to the first conductivity type;

- a source area in the substrate laterally spaced from the drain area and having a doping of the second conductivity type;

- a channel area in the substrate disposed between the source area and the drain area;

and

- a plurality of regions of the second conductivity type extending from the drain area

into a portion of the substrate having the first conductivity type,

wherein the substrate comprises a surface at which the source area, the channel area, and the drain area are arranged, and wherein the plurality of regions extend in a parallel manner generally away from the surface of the substrate.

Claim 33. (new) The field effect transistor of claim 32, wherein the plurality of regions comprise a plurality of parallel columns.

Claim 34. (new) The field effect transistor of claim 32, wherein the plurality of regions has a comb-shaped cross section.